

CLAIMS

1. A grease composition comprising a base oil, a thickener and an extreme-pressure agent containing sulfur in a molecular structure thereof,

wherein said extreme-pressure agent is added to said base oil so that a product of an amount (mgS/g) of active sulfur contained in said extreme-pressure agent and an addition amount (wt%) of said extreme-pressure agent with respect to an entire amount of said grease composition is in a range of 3 to 13.

2. The grease composition according to claim 1, wherein not less than two kinds of said extreme-pressure agents are added to said base oil; a product of an amount (mgS/g) of active sulfur contained in each of said extreme-pressure agents and an addition amount (wt%) of each of said extreme-pressure agents with respect to an entire amount of said grease composition is found; and said extreme-pressure agents are added to said base oil so that a sum of said products computed for all of said extreme-pressure agents is in a range of 3 to 13.

3. The grease composition according to claim 1, wherein said extreme-pressure agent is at least one extreme-pressure agent selected from among sulfurized grease, sulfurized olefin, ester sulfide, molybdenum dithiocarbamate, zinc dithiocarbamate, zinc dithiophosphate, and molybdenum dithiophosphate.

4. The grease composition according to claim 1 or 2, wherein said thickener is at least one thickener selected from among a urea compound or metal soap.

5. A method of manufacturing a grease composition comprising a step of adding a thickener and an extreme-pressure agent containing sulfur in a molecular structure thereof to base oil,

wherein said extreme-pressure agent is added to said base oil so that a product of an amount (mgS/g) of active sulfur contained in said extreme-pressure agent and an addition amount (wt%) of said extreme-pressure agent with respect to an entire amount of said grease composition is in a range of 3 to 13.

6. A rolling bearing comprising an inner ring; an outer ring; a plurality of rolling elements interposed between said inner ring and said outer ring; and a grease composition enclosed in a periphery of said rolling elements, wherein said grease composition is a grease composition according to claims 1, 2 or 3.

7. The rolling bearing according to claim 6, wherein said rolling bearing is a ball bearing.